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PATENT  
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF APPEALS AND INTERFERENCES

In re Application of: SEUNG-CHEOL HONG *et al.*

Original Patent No. 5,944,830 issued on 31 August 1999

Appeal No. \_\_\_\_\_  
**RECEIVED**  
SEP 09 2003  
OFFICE OF PETITIONS

Serial No.: 09/942,961

Examiner: DHARIA, RUPAL

Filed: 31 August 2001

Art Unit: 2181

For: REDUCING POWER CONSUMPTION IN MONITOR BY SWITCHING OFF  
HEATER POWER IN POWER-OFF MODE

Attn: Board of Patent Appeals & Interferences

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**APPEAL BRIEF**

SEP 05 2003

Technology Center 2100

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Commissioner for Patents

P.O.Box 1450

Alexandria, VA 22313-1450

Sir:

Pursuant to Appellants' Notice of Appeal filed on 2 July 2003, Appellants hereby respectfully  
appeal the rejection of claims 11-33, 35, 36, 38, 42, 43, 46, 55, 56, and 60, as set forth in the final  
Office action mailed on 2 April 2003 (Paper No. 12).

Folio: P54428RE

Date: 9/2/03

I.D.: REB/DC/kf

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**1. REAL PARTY IN INTEREST**

Pursuant to 37 C.F.R. § 1.192(c)(1)(as amended), the real party in interest is:

SamSung Electronics Co., Ltd.  
#416, Maetan-dong, Paldal-gu  
Suwon-city, Kyungki-do, Republic of KOREA

as evidenced by the Assignment executed by all of the inventors and recorded in the U.S.  
Patent & Trademark Office on the 9th day of July 2001 at Reel 11958, frame 0218.

**2. RELATED APPEALS AND INTERFERENCES**

There are no other appeals and no interferences known to Appellants, Appellants' legal representatives, or the assignee which will directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal.

**3. STATUS OF CLAIMS**

The claims 1-60 are pending. The claims 1-10 and 49-54 stand allowed, as set forth on page 4 of the final Office action mailed on 2 April 2003 (Paper No. 12). The Examiner indicated that claims 34, 37, 39-41, 44, 45, 47, 48, and 57-59 include patentable subject matter (Paper No. 12, p. 5). The claims 34, 37, 39-41, 44, 45, 47, 48, and 57-59 stand objected to as being dependent upon rejected base claims and would be allowable if rewritten to include features of the respective base claims and any intervening claims (Paper No. 12, p. 5). The claims 11-33, 35, 36, 38, 42, 43, 46, 55, 56, and 60 stand rejected (Paper No. 12, p. 2). The Appellants appeal the rejection of 11-33, 35, 36, 38, 42, 43, 46, 55, 56, and 60.

**4. STATUS OF AMENDMENTS**

No Amendment was filed subsequent to the final Office action (Paper No. 12).

**5. SUMMARY OF INVENTION**

The present invention relates to an apparatus that controls the power management of a display monitor and that indicates the operating mode of the display monitor. The apparatus reduces power consumption in the display monitor by switching off heater power in a power-off mode. The apparatus indicates the operating mode of the display monitor based on a mode signal generated in dependence upon synchronization signals.

The Figure 2 shows a power supply 200, a switching circuit 240, a microcomputer 250, a transformer 220 with an output T5, a heater of a color display tube 290, a mode indicator 260, an input port 270, and other features. The Figure 3 shows a transistor Q11 in the switching circuit 240, and other features. The color display tube 290 displays visual images corresponding to video output from a computer to the input port 270. The switching circuit 240 selectively switches on and off in response to power control signal PS received from the microcomputer 250. When the power control signal PS has a low level, the switching circuit 240 switches on, and thus the output power provided at the output T5 of the transformer 220 is supplied to the heater of the color display tube 290 via the transistor Q11 in the switching circuit 240 (col. 5, lines 59-61; col. 6, lines 33-36).

When horizontal synchronization signals (HSYNC) and vertical synchronization signals (VSYNC) are not supplied to the input port 270 and the monitor enters a power-off mode, the microcomputer 250 outputs the high level power control signal PS to the switching circuit 240 and the mode indicator 260 (col. 5, lines 55-59). When the power control signal PS has a high level, the switching circuit 240 switches off, and thus the output power provided at the output T5 of the transformer 220 is not supplied to the heater of the color display tube 290.

**6. ISSUE**

Whether claims 11-33, 35, 36, 38, 42, 43, 46, 55, 56, and 60 were improperly rejected under 35 U.S.C. § 103(a) for alleged unpatentability over alleged Applicant's Admitted Prior Art (AAPA) in view of Heineman U.S. Patent No. 5,465,366 (hereinafter referred to as Heineman).

**7. GROUPING OF THE CLAIMS**

The claims 11, 12, 14, 17, 18, 20, 21, 22, 24, 25, 28, 31, 35, 38, 43, 46, 55, and 56 do not stand or fall together. Each one of the claims 11, 12, 14, 17, 18, 20, 21, 22, 24, 25, 28, 31, 35, 38, 43, 46, 55, and 56 is separately patentable. Furthermore, the Appellants provide reasons explaining why those claims do not stand or fall together, in the section 8 which is entitled "Argument".

**8. ARGUMENT**

Before presenting arguments in opposition to the final rejection, the reasons supporting the Appellants' grouping of claims will be discussed.

8.1. Reasons Supporting Appellants' Grouping of Claims

The claims are grouped as follows. The claims 11, 12, 14, 17, 18, 20, 21, 22, 24, 25, 28, 31, 35, 38, 43, 46, 55, and 56 do not stand or fall together. Each one of the claims 11, 12, 14, 17, 18, 20, 21, 22, 24, 25, 28, 31, 35, 38, 43, 46, 55, and 56 is separately patentable.

The claim 11 is separately patentable for the following reasons. The Examiner improperly relies upon alleged “Applicant's Admitted Prior Art” (AAPA) in the rejection of this claim even though the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under any subsection of 35 U.S.C. § 102, and the portions of art cited and relied upon by the Examiner in the rejection of this claim (Fig. 1; col. 1, lines 37-67; and col. 4, lines 10-60 of alleged AAPA) differ from the portions cited in the rejection of other claims which leads to different flaws in the rejection in this case, regarding other claims. Also, the rejection of this claim is improper for reasons differing from the reasons showing why the rejection of other claims is improper. In particular, the apparatus, the power supply providing power to the heater, and the switch as set forth in this claim are not taught by Heineman, and the alleged AAPA cannot be cited and relied upon as prior art against these features when the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under one or more subsections of 35 U.S.C. § 102.

The claim 12 is separately patentable for the following reasons. The Examiner improperly relies upon alleged “Applicant's Admitted Prior Art” (AAPA) in the rejection of this claim even though the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under any

subsection of 35 U.S.C. § 102, and the portions of art cited and relied upon by the Examiner in the rejection of this claim (Fig. 1; col. 1, lines 23-35; and col. 4, lines 30-43 of alleged AAPA) differ from the portions cited in the rejection of other claims which leads to different flaws in the rejection in this case, regarding other claims. Also, the rejection of this claim is improper for reasons differing from the reasons showing why the rejection of other claims is improper. In particular, the apparatus, the control unit, and the “generating” as set forth in this claim are not taught by Heineman, and the alleged AAPA cannot be cited and relied upon as prior art against these features when the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under one or more subsections of 35 U.S.C. § 102.

The claim 14 is separately patentable for the following reasons. The Examiner improperly relies upon alleged “Applicant's Admitted Prior Art” (AAPA) in the rejection of this claim even though the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under any subsection of 35 U.S.C. § 102, and the portions of art cited and relied upon by the Examiner in the rejection of this claim (col. 4, lines 10-45 of alleged AAPA) differ from the portions cited in the rejection of other claims which leads to different flaws in the rejection in this case, regarding other claims. Also, the rejection of this claim is improper for reasons differing from the reasons showing why the rejection of other claims is improper. In particular, the apparatus and the “present power mode being one selected from among a plurality of power modes, in accordance with display power management signaling standard” as set forth in this claim are not taught by Heineman, and the alleged AAPA cannot be cited and relied upon as prior art against these features when the Examiner

has not demonstrated that the alleged AAPA qualifies as prior art under one or more subsections of 35 U.S.C. § 102.

The claim 17 is separately patentable for the following reasons. The Examiner improperly relies upon alleged “Applicant's Admitted Prior Art” (AAPA) in the rejection of this claim even though the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under any subsection of 35 U.S.C. § 102, and the portions of art cited and relied upon by the Examiner in the rejection of this claim (Fig. 1; col. 1, lines 37-67; and col. 4, lines 10-60 of alleged AAPA) differ from the portions cited in the rejection of other claims which leads to different flaws in the rejection in this case, regarding other claims. Also, the rejection of this claim is improper for reasons differing from the reasons showing why the rejection of other claims is improper. In particular, the method, “providing power to a heater of a tube”, providing the switch, and turning off the switch when the monitor enters a power-off mode as set forth in this claim are not taught by Heineman, and the alleged AAPA cannot be cited and relied upon as prior art against these features when the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under one or more subsections of 35 U.S.C. § 102.

The claim 18 is separately patentable for the following reasons. The Examiner improperly relies upon alleged “Applicant's Admitted Prior Art” (AAPA) in the rejection of this claim even though the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under any subsection of 35 U.S.C. § 102, and the portions of art cited and relied upon by the Examiner in the

rejection of this claim (Fig. 1; col. 1, lines 23-35; and col. 4, lines 30-43 of alleged AAPA) differ from the portions cited in the rejection of other claims which leads to different flaws in the rejection in this case, regarding other claims. Also, the rejection of this claim is improper for reasons differing from the reasons showing why the rejection of other claims is improper. In particular, the method, “providing power to a heater of a tube”, providing the switch, and turning off the switch when the monitor enters a power-off mode as set forth in this claim are not taught by Heineman, and the alleged AAPA cannot be cited and relied upon as prior art against these features when the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under one or more subsections of 35 U.S.C. § 102.

The claim 20 is separately patentable for the following reasons. The Examiner improperly relies upon alleged “Applicant's Admitted Prior Art” (AAPA) in the rejection of this claim even though the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under any subsection of 35 U.S.C. § 102, and the portions of art cited and relied upon by the Examiner in the rejection of this claim (col. 4, lines 10-45 of alleged AAPA) differ from the portions cited in the rejection of other claims which leads to different flaws in the rejection in this case, regarding other claims. Also, the rejection of this claim is improper for reasons differing from the reasons showing why the rejection of other claims is improper. In particular, the method and the “indicating of the power mode of the monitor being performed in dependence upon a mode signal, the mode signal being generated in dependence upon the video synchronization signal” as set forth in this claim are not taught by Heineman, and the alleged AAPA cannot be cited and relied upon as prior art against



these features when the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under one or more subsections of 35 U.S.C. § 102.

The claim 21 is separately patentable for the following reasons. The Examiner improperly relies upon alleged “Applicant's Admitted Prior Art” (AAPA) in the rejection of this claim even though the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under any subsection of 35 U.S.C. § 102, and the portions of art cited and relied upon by the Examiner in the rejection of this claim (Fig. 1; col. 1, lines 37-67; and col. 4, lines 10-60 of alleged AAPA) differ from the portions cited in the rejection of other claims which leads to different flaws in the rejection in this case, regarding other claims. Also, the rejection of this claim is improper for reasons differing from the reasons showing why the rejection of other claims is improper. In particular, the “computer storage medium having stored thereon a set of instructions implementing a method, the set of instructions comprising one or more instructions: providing power to a heater” and providing a switch and turning off the switch as set forth in this claim are not taught by Heineman, and the alleged AAPA cannot be cited and relied upon as prior art against these features when the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under one or more subsections of 35 U.S.C. § 102.

The claim 22 is separately patentable for the following reasons. The Examiner improperly relies upon alleged “Applicant's Admitted Prior Art” (AAPA) in the rejection of this claim even though the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under any

subsection of 35 U.S.C. § 102, and the portions of art cited and relied upon by the Examiner in the rejection of this claim (Fig. 1; col. 1, lines 23-35; and col. 4, lines 30-43 of alleged AAPA) differ from the portions cited in the rejection of other claims which leads to different flaws in the rejection in this case, regarding other claims. Also, the rejection of this claim is improper for reasons differing from the reasons showing why the rejection of other claims is improper. In particular, the “computer storage medium”, the set of instructions, receiving a video synchronization signal, and generating a control signal in dependence upon the received video synchronization signal to control said switch as set forth in this claim are not taught by Heineman, and the alleged AAPA cannot be cited and relied upon as prior art against these features when the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under one or more subsections of 35 U.S.C. § 102.

The claim 24 is separately patentable for the following reasons. The Examiner improperly relies upon alleged “Applicant's Admitted Prior Art” (AAPA) in the rejection of this claim even though the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under any subsection of 35 U.S.C. § 102, and the portions of art cited and relied upon by the Examiner in the rejection of this claim (col. 4, lines 10-45 of alleged AAPA) differ from the portions cited in the rejection of other claims which leads to different flaws in the rejection in this case, regarding other claims. Also, the rejection of this claim is improper for reasons differing from the reasons showing why the rejection of other claims is improper. In particular, the “computer storage medium”, the instructions, indicating the power mode based on a mode signal, and the mode signal being generated in dependence upon the video synchronization signal as set forth in this claim are not taught by

Heineman, and the alleged AAPA cannot be cited and relied upon as prior art against these features when the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under one or more subsections of 35 U.S.C. § 102.

The claim 25 is separately patentable for the following reasons. The Examiner improperly relies upon alleged "Applicant's Admitted Prior Art" (AAPA) in the rejection of this claim even though the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under any subsection of 35 U.S.C. § 102, and the portions of art cited and relied upon by the Examiner in the rejection of this claim (Fig. 1; col. 1, lines 37-67; and col. 4, lines 10-60 of alleged AAPA) differ from the portions cited in the rejection of other claims which leads to different flaws in the rejection in this case, regarding other claims. Also, the rejection of this claim is improper for reasons differing from the reasons showing why the rejection of other claims is improper. In particular, the apparatus, the control unit, and the switch switching on to convey power to the heater as set forth in this claim are not taught by Heineman, and the alleged AAPA cannot be cited and relied upon as prior art against these features when the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under one or more subsections of 35 U.S.C. § 102.

The claim 28 is separately patentable for the following reasons. The Examiner improperly relies upon alleged "Applicant's Admitted Prior Art" (AAPA) in the rejection of this claim even though the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under any subsection of 35 U.S.C. § 102, and the portions of art cited and relied upon by the Examiner in the

rejection of this claim (col. 4, lines 10-45 of alleged AAPA) differ from the portions cited in the rejection of other claims which leads to different flaws in the rejection in this case, regarding other claims. Also, the rejection of this claim is improper for reasons differing from the reasons showing why the rejection of other claims is improper. In particular, the apparatus, the present power mode, the plurality of power modes, and the display power management signaling as set forth in this claim are not taught by Heineman, and the alleged AAPA cannot be cited and relied upon as prior art against these features when the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under one or more subsections of 35 U.S.C. § 102.

The claim 31 is separately patentable for the following reasons. The Examiner improperly relies upon alleged "Applicant's Admitted Prior Art" (AAPA) in the rejection of this claim even though the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under any subsection of 35 U.S.C. § 102, and the portions of art cited and relied upon by the Examiner in the rejection of this claim (Fig. 1; col. 1, lines 37-67; and col. 4, lines 10-60 of alleged AAPA) differ from the portions cited in the rejection of other claims which leads to different flaws in the rejection in this case, regarding other claims. Also, the rejection of this claim is improper for reasons differing from the reasons showing why the rejection of other claims is improper. In particular, the method, generating the control signal, conveying power to the heater, and preventing the heater from receiving power as set forth in this claim are not taught by Heineman, and the alleged AAPA cannot be cited and relied upon as prior art against these features when the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under one or more subsections of 35 U.S.C. § 102.

The claim 35 is separately patentable for the following reasons. The Examiner improperly relies upon alleged "Applicant's Admitted Prior Art" (AAPA) in the rejection of this claim even though the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under any subsection of 35 U.S.C. § 102, and the portions of art cited and relied upon by the Examiner in the rejection of this claim (Fig. 1; col. 1, lines 37-67; and col. 4, lines 10-60 of alleged AAPA) differ from the portions cited in the rejection of other claims which leads to different flaws in the rejection in this case, regarding other claims. Also, the rejection of this claim is improper for reasons differing from the reasons showing why the rejection of other claims is improper. In particular, the computer storage medium, the set of instructions, generating the control signal, conveying power to the heater, and preventing the heater from receiving power as set forth in this claim are not taught by Heineman, and the alleged AAPA cannot be cited and relied upon as prior art against these features when the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under one or more subsections of 35 U.S.C. § 102.

The claim 38 is separately patentable for the following reasons. The Examiner improperly relies upon alleged "Applicant's Admitted Prior Art" (AAPA) in the rejection of this claim even though the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under any subsection of 35 U.S.C. § 102, and the portions of art cited and relied upon by the Examiner in the rejection of this claim (Fig. 1; col. 1, lines 37-67; and col. 4, lines 10-60 of alleged AAPA) differ from the portions cited in the rejection of other claims which leads to different flaws in the rejection in this case, regarding other claims. Also, the rejection of this claim is improper for reasons differing

from the reasons showing why the rejection of other claims is improper. In particular, the apparatus, control unit, heater of cathode ray tube of monitor, switch conveying power to the heater, and the switch not conveying power to the heater as set forth in this claim are not taught by Heineman, and the alleged AAPA cannot be cited and relied upon as prior art against these features when the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under one or more subsections of 35 U.S.C. § 102.

The claim 43 is separately patentable for the following reasons. The Examiner improperly relies upon alleged "Applicant's Admitted Prior Art" (AAPA) in the rejection of this claim even though the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under any subsection of 35 U.S.C. § 102, and the portions of art cited and relied upon by the Examiner in the rejection of this claim (Fig. 1; col. 1, lines 23-35; and col. 4, lines 30-43 of alleged AAPA) differ from the portions cited in the rejection of other claims which leads to different flaws in the rejection in this case, regarding other claims. Also, the rejection of this claim is improper for reasons differing from the reasons showing why the rejection of other claims is improper. In particular, the method, detecting whether a synchronization signal is present, and generating a control signal in dependence upon the detected presence of the synchronization signal as set forth in this claim are not taught by Heineman, and the alleged AAPA cannot be cited and relied upon as prior art against these features when the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under one or more subsections of 35 U.S.C. § 102.

The claim 46 is separately patentable for the following reasons. The Examiner improperly relies upon alleged "Applicant's Admitted Prior Art" (AAPA) in the rejection of this claim even though the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under any subsection of 35 U.S.C. § 102, and the portions of art cited and relied upon by the Examiner in the rejection of this claim (Fig. 1; col. 1, lines 23-35; and col. 4, lines 30-43 of alleged AAPA) differ from the portions cited in the rejection of other claims which leads to different flaws in the rejection in this case, regarding other claims. Also, the rejection of this claim is improper for reasons differing from the reasons showing why the rejection of other claims is improper. In particular, the computer storage medium, set of instructions, detecting whether a synchronization signal is present, and generating a control signal in dependence upon the detected presence of the synchronization signal as set forth in this claim are not taught by Heineman, and the alleged AAPA cannot be cited and relied upon as prior art against these features when the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under one or more subsections of 35 U.S.C. § 102.

The claim 55 is separately patentable for the following reasons. The Examiner improperly relies upon alleged "Applicant's Admitted Prior Art" (AAPA) in the rejection of this claim even though the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under any subsection of 35 U.S.C. § 102, and the portions of art cited and relied upon by the Examiner in the rejection of this claim (Fig. 1; col. 1, lines 37-67; and col. 4, lines 10-60 of alleged AAPA) differ from the portions cited in the rejection of other claims which leads to different flaws in the rejection in this case, regarding other claims. Also, the rejection of this claim is improper for reasons differing

from the reasons showing why the rejection of other claims is improper. In particular, the display apparatus having a tube heater, and the control unit detecting a synchronization signal as set forth in this claim are not taught by Heineman, and the alleged AAPA cannot be cited and relied upon as prior art against these features when the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under one or more subsections of 35 U.S.C. § 102.

The claim 56 is separately patentable for the following reasons. The Examiner improperly relies upon alleged "Applicant's Admitted Prior Art" (AAPA) in the rejection of this claim even though the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under any subsection of 35 U.S.C. § 102, and the portions of art cited and relied upon by the Examiner in the rejection of this claim (Fig. 1; col. 1, lines 23-35; and col. 4, lines 30-43 of alleged AAPA) differ from the portions cited in the rejection of other claims which leads to different flaws in the rejection in this case, regarding other claims. Also, the rejection of this claim is improper for reasons differing from the reasons showing why the rejection of other claims is improper. In particular, the display apparatus, and said control unit being configured to generate a second control signal when said synchronization signal is detected as set forth in this claim are not taught by Heineman, and the alleged AAPA cannot be cited and relied upon as prior art against these features when the Examiner has not demonstrated that the alleged AAPA qualifies as prior art under one or more subsections of 35 U.S.C. § 102.

The foregoing statements and reasons show why the claims 11, 12, 14, 17, 18, 20, 21, 22, 24,



25, 28, 31, 35, 38, 43, 46, 55, and 56 do not stand or fall together, and demonstrate why each one of the claims 11, 12, 14, 17, 18, 20, 21, 22, 24, 25, 28, 31, 35, 38, 43, 46, 55, and 56 is separately patentable.

8.2 The Rejection of Claims 11-33, 35, 36, 38, 42, 43, 46, 55, 56, and 60 is Improper

For the reasons stated below, Appellants submit that the claims 11-33, 35, 36, 38, 42, 43, 46, 55, 56, and 60 of this application recite the invention in sufficient detail to be patentable over the art cited and relied upon in the final Office action (Paper No. 12).

8.2.1. The Rejection of Claims 20 and 24 is Improper

The claims 20 and 24 set forth features including at least “indicating ... in dependence upon a mode signal, the mode signal being generated in dependence upon ... synchronization signal”. These features are not taught by the Examiner's proposed combination of Heineman and the alleged AAPA, and thus the § 103 rejection of these claims is respectfully believed to be improper.

Furthermore, the Examiner states that claims 34 and 37 would be allowable if rewritten in independent form (Paper No. 12, p. 5), and the claims 34 and 37 each set forth at least the following features: “indicating ... power mode of the monitor based on a mode signal, the mode signal being generated in dependence upon ... synchronization signals.”

In view of these facts, and because the Examiner indicated that claims 34 and 37 set forth

allowable subject matter (Paper No. 12, p. 5), the Appellants respectfully submit that the claims 20 and 24 also set forth allowable subject matter. Accordingly, the Appellants respectfully request that the rejection of claims 20 and 24 be overturned.

8.2.2. The Examiner did not Establish a *Prima Facie* Case of Obviousness

The Examiner rejects 11-33, 35, 36, 38, 42, 43, 46, 55, 56, and 60 under 35 U.S.C. § 103(a) as being unpatentable over alleged “Applicant's Admitted Prior Art” (AAPA) in view of Heineman (Paper No. 12, p. 2). The Appellants respectfully believe that the rejection of claims 11-33, 35, 36, 38, 42, 43, 46, 55, 56, and 60 is improper because the Examiner failed to establish a *prima facie* case of obviousness regarding the features set forth in those claims.

The Examiner failed to establish a *prima facie* case of obviousness regarding the features set forth in those claims for the following reasons.

- Reason #1: The Examiner combined features set forth in the Appellants' disclosure with features of Heineman and then relied on that combination to reject claims 11-33, 35, 36, 38, 42, 43, 46, 55, 56, and 60, even though the features set forth in the Appellants' disclosure ***do not*** qualify as prior art under any subsection of 35 U.S.C. § 102. Therefore the proposed combination of art is ***improper***, and the rejection of claims 11-33, 35, 36, 38, 42, 43, 46, 55, 56, and 60 is fatally flawed and should be overturned.

- Reason #2: When it is recognized that the Examiner has not demonstrated that the features set forth in the Appellants' disclosure qualify as prior art under any subsection of 35 U.S.C. § 102, the reference remaining is Heineman. The remaining reference, Heineman, fails to teach or suggest all the features set forth in all the claims 11-33, 35, 36, 38, 42, 43, 46, 55, 56, and 60. Therefore, the rejection is improper and should be overturned.

To establish a *prima facie* case of obviousness, for a rejection of claims under 35 U.S.C. § 103, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art reference (or references when combined) must teach or suggest all the claim limitations (see the *Manual of Patent Examining Procedure* (MPEP) § 706.02(j)). If the examiner fails to establish a *prima facie* case, the rejection is improper and will be overturned. *In re Fine*, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

In every one of the claim rejections, the Examiner relies upon portions of the Appellants' disclosure that do not qualify as “prior art” under any subsection of 35 U.S.C. § 102. Therefore, the rejections of claims under § 103 are flawed and improper.

First, the Examiner has not satisfied the first basic criteria of a *prima facie* case of

obviousness because the rejection relies on a combination of the teachings of portions of the Appellants' disclosure, which do not qualify as "prior art" under §§ 102 and 103, with the teachings of Heineman. Such a combination forces the § 103 rejection to be invalid.

Second, the Examiner has not satisfied the second basic criteria of a *prima facie* case of obviousness because the Examiner has not shown a reasonable expectation of success relating to subject matter that qualifies as prior art under any subsection of 35 U.S.C. § 102.

Third, the Examiner has not satisfied the third basic criteria of a *prima facie* case of obviousness because the rejection relies on a combination of the teachings of portions of the Appellants' disclosure, which do not qualify as "prior art" under §§ 102 and 103, with the teachings of Heineman. Such a combination forces the § 103 rejection to be invalid.

The Examiner relies upon particular portions of the Appellants' disclosure in view of Heineman, and those particular portions of the Appellants' disclosure are improperly referred to by the Examiner as "Applicant's Admitted Prior Art".

The Appellants respectfully traverse this rejection for several reasons, including the fact that the portions of the Appellants' disclosure, as relied upon by the Examiner, are not available to cite as "prior art" in a rejection of claims of the present invention. The Appellants respectfully submit that the Examiner has improperly alleged that particular portions of the Appellants' disclosure,

including Figure 1, are deemed to be “Applicant's Admitted Prior Art” (AAPA).

“[C]ertain art may be prior art to one inventive entity, but not to the public in general.” *In re Fout*, 675 F.2d 297, 300-301, 213 USPQ 532, 535-536 (CCPA 1982); MPEP § 2129. “This is the case when applicant has made an improvement on his or her own prior invention. An applicant's own foundational work should not, unless there is a statutory bar, be treated as prior art solely because knowledge of this work is admitted.” MPEP § 2129.

Accordingly, the Appellants respectfully request that the Examiner withdraw the § 103 rejection of claims. In Paper No. 12, the Examiner improperly alleges that the following portions of Appellants' disclosure are “Applicant's Admitted Prior Art”: Appellants' Figure 1, col. 1 at lines 37-67, col. 4 at lines 10-60, col. 1 at lines 23-35, col. 4 at lines 30-43, col. 2 at lines 4-14, col. 4 at lines 47-60, and col. 4 at lines 10-45.

More briefly, the Examiner improperly alleges that the following portions of Appellants' disclosure are “Applicant's Admitted Prior Art”: Figure 1, col. 1 at lines 23-35 and 37-67, col. 2 at lines 4-14, and col. 4 at lines 10-60. Appellants respectfully submit that Appellants' Figure 1, col. 1 at lines 23-35 and 37-67, col. 2 at lines 4-14, and col. 4 at lines 10-60 are not “prior art” and, furthermore, submit that those portions are not admitted by Appellants to be “prior art.”

Appellants respectfully submit that Appellants' Figure 1, col. 1 at lines 23-35 and 37-67, col.

2 at lines 4-14, and col. 4 at lines 10-60 cannot be described as “Applicant's Admitted Prior Art.” Appellants' Figure 1, col. 1 at lines 23-35 and 37-67, col. 2 at lines 4-14, and col. 4 at lines 10-60 cannot be cited as “prior art” in a rejection of claims of the present Application, and thus the Examiner is respectfully believed to have improperly rejected claims 11-33, 35, 36, 38, 42, 43, 46, 55, 56, and 60 under § 103.

The Appellants respectfully submit that the word “earlier” is not the equivalent of the term “prior art”. The term “prior art” is defined by reference to 35 U.S.C. §§ 102, 103. A device can be considered to be an “earlier” device by an inventor, even when that device is not “prior art” according to 35 U.S.C. §§ 102, 103. Thus, in a hypothetical example, a first device may have been developed by an inventor on a first date, and then one month later the inventor may develop a second device. In this hypothetical example, the first and second devices are related but not identical. In this example, the first device is not “prior art” as defined by 35 U.S.C. §§ 102, 103, even if the inventor describes it as “earlier” in a patent application claiming the second device, since the first device was never known or used by others in this country, or patented or described in a printed publication in this country or a foreign country, before the invention thereof by the inventor. In the above hypothetical example, the first device was not patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date afforded the application for the second device. Also, the first device was not made in this country by someone other than the inventor. *The above hypothetical example demonstrates that it is possible for a device to be an “earlier” device (in the opinion of the inventor) even when that*

*device does not qualify as “prior art” under any of the subsections of 35 U.S.C. § 102.* The “first device” in the above hypothetical example can correspond to the features depicted by Appellants' Figure 1, col. 1 at lines 23-35 and 37-67, col. 2 at lines 4-14, and col. 4 at lines 10-60, and the “second device” in the above hypothetical example can correspond to the features set forth in the Appellants' rejected claims.

The Examiner has not cited any evidence showing that Appellants' Figure 1, col. 1 at lines 23-35 and 37-67, col. 2 at lines 4-14, and col. 4 at lines 10-60 are “prior art” as the term “prior art” is defined by the U.S. Patent Statutes, namely 35 U.S.C. § 103 which defines the term “prior art” by reference to 35 U.S.C. § 102.

The Examiner has improperly alleged the word “earlier” is the equivalent of the phrase “prior art” in a patent application. The Examiner has failed to establish a *prima facie* case showing that the word “earlier” should be interpreted as being equivalent to the phrase “prior art”. The Examiner failed to show by a preponderance of evidence that the word “earlier” should be interpreted as being equivalent to the phrase “prior art”.

In Paper No. 12, on page 4, the Examiner offers a definition of the word “earlier” that includes “near the beginning of a given series”. However, the definition provided by the Examiner is not *dispositive* in determining whether the word “earlier” is equivalent to the phrase “prior art”. In fact, the definition provided by the Examiner is not even helpful in this issue, because the key

point is the text and interpretation of 35 U.S.C. §§ 102, 103. Subject matter will only be considered to be “prior art” when the phrase “prior art” is used by an applicant, or when the conditions set forth in 35 U.S.C. §§ 102, 103 are satisfied (related to a printed publication, a public use, or a sale, etc., more than one year prior to the date afforded the application). In this regard, the Examiner has not demonstrated that **any** of the subsections of 35 U.S.C. § 102 are satisfied regarding the subject matter described as “earlier”. The Examiner merely states that “earlier” subject matter has shortcomings, and merely offers a dictionary definition of “earlier” which does not explicitly relate to printed publications, public use, or a sale more than one year prior to an application date.

Neither the U.S. Patent Statutes (35 U.S.C. §§ 1-376), the Rules of Practice in Patent Cases (37 C.F.R. §§ 1.1-1.825), nor any other authority supports the Examiner's allegation.

Appellants' Figure 1, col. 1 at lines 23-35 and 37-67, col. 2 at lines 4-14, and col. 4 at lines 10-60 are not believed to be “prior art” as that term is defined by the U.S. Patent Statutes, namely 35 U.S.C. § 103 which defines the term “prior art” by reference to 35 U.S.C. § 102. Appellants' Figure 1, col. 1 at lines 23-35 and 37-67, col. 2 at lines 4-14, and col. 4 at lines 10-60 represent an abstract representation prepared specifically by Appellants in an effort to illustrate Appellants' discovery of the problems that have long plagued this area. This discovery is itself, together with Appellants' abstract representation as disclosed in Appellants' Figure 1, col. 1 at lines 23-35 and 37-67, col. 2 at lines 4-14, and col. 4 at lines 10-60, an integral part of Appellants' disclosed invention. By identifying deficiencies of the art and then addressing those deficiencies, Appellants completes



the inventive process. As such, Appellants' effort to identify deficiencies or other undesirable features in the art does not constitute "prior art" as that term is defined by the U.S. Patent Statutes, namely 35 U.S.C. § 103 which defines the term "prior art" by reference to 35 U.S.C. § 102. Therefore, Appellants' Figure 1, col. 1 at lines 23-35 and 37-67, col. 2 at lines 4-14, and col. 4 at lines 10-60 are Appellants' work product and are the Appellants' effort to describe the invention in terms of the problems which have plagued this area. Appellants have addressed the problems which have plagued this area with the inventions defined by the pending claims.

When the Examiner improperly describes Appellants' Figure 1 as "Applicant's Admitted Prior Art," this suggests that this figure itself constitutes "prior art." This is clearly not correct.

When the Examiner improperly describes Appellants' col. 1 at lines 23-35 and 37-67, col. 2 at lines 4-14, and col. 4 at lines 10-60 as "Applicant's Admitted Prior Art," this suggests that these portions of Appellants' disclosure constitute "prior art." This is clearly not correct.

Appellants respectfully note that the claims define Appellants' invention, and the specification provides a description of the claimed invention. Moreover, the subject matter of Appellants' Figure 1, col. 1 at lines 23-35 and 37-67, col. 2 at lines 4-14, and col. 4 at lines 10-60 is expressly discussed in the specification, and nothing in the claims or the specification would suggest that Appellants' Figure 1, col. 1 at lines 23-35 and 37-67, col. 2 at lines 4-14, and col. 4 at lines 10-60 depict the claimed invention.

Furthermore, not every item shown in the drawings is necessarily defined by a pending claim. The earlier work of Appellants is represented by some of the drawings, and is not necessarily claimed. The earlier work of an applicant is not “prior art” as defined by § 102 unless that earlier work qualifies as prior art under any of the subsections of 35 U.S.C. § 102.

That is, the earlier work of an applicant will not be available to cite against that applicant's claims as “prior art” unless that earlier work meets the definition of “prior art” as shown in 35 U.S.C. § 102. To meet the definition of prior art shown in § 102, the earlier work would have to have been “known or used by others in this country ... before the invention thereof by the applicant” (35 U.S.C. § 102(a)) or “patented or described in a printed publication ... more than one year prior to the date of the application for patent” (35 U.S.C. § 102(b)), etc.

The term “related art” was used in the original disclosure. Appellants used this term in order to help explain information that is known to Appellants to help highlight improvements made by Appellants. Appellants respectfully submit that this use of this term is well within the range of consistency with the ordinary meaning for this term, whatever one considers to be the ordinary meaning. Therefore, Appellants are entitled to use this term for the meaning Appellants have given it. Furthermore, Appellants respectfully submit that this term is not the equivalent of “prior art,” as “prior art” is defined by the U.S. Patent Statutes, namely 35 U.S.C. § 103 which defines the term “prior art” by reference to 35 U.S.C. § 102.

“[C]ertain art may be prior art to one inventive entity, but not to the public in general.” *In re Fout*, 675 F.2d 297, 300-301, 213 USPQ 532, 535-536 (CCPA 1982); MPEP § 2129. “This is the case when applicant has made an improvement on his or her own prior invention. An applicant's own foundational work should not, unless there is a statutory bar, be treated as prior art solely because knowledge of this work is admitted.” MPEP § 2129.

The present Application is based on a translation of Korean application 1996-4299 and Korean application 1996-6135, on which Appellants have claimed priority as evidenced by the Declaration (Oath). Accordingly, the terms therein can, at most, only be considered with reference to Korea, not this country. MPEP § 706.02(c) states, in part: “The language ‘in this country’ means in the United States only and does not include other WTO or NAFTA member countries.”

Importantly, as evidenced from the Declaration/Oath, the Appellants are citizens of Korea, and, as such, performed work in Korea in order to obtain the results disclosed in Figure 1, col. 1 at lines 23-35 and 37-67, col. 2 at lines 4-14, and col. 4 at lines 10-60. There has been no showing, and the Appellants have never admitted, that the Appellants' Figure 1, col. 1 at lines 23-35 and 37-67, col. 2 at lines 4-14, and col. 4 at lines 10-60 were ever known or used by others in this country, or patented or described in a printed publication in this country or a foreign country, before the invention thereof by the Appellants. Further, there has been no showing that the features, as depicted in Figure 1, col. 1 at lines 23-35 and 37-67, col. 2 at lines 4-14, and col. 4 at lines 10-60, were patented or described in a printed publication in this or a foreign country or in public use or on sale

in this country, more than one year prior to the date afforded the present invention. Also, there has been no showing that the features, as depicted in Figure 1, col. 1 at lines 23-35 and 37-67, col. 2 at lines 4-14, and col. 4 at lines 10-60, were ever made in this country by someone other than the Appellants.

Appellants respectfully submit that under these facts the law does not allow the Examiner to improperly allege that Appellants' Figure 1, col. 1 at lines 23-35 and 37-67, col. 2 at lines 4-14, and col. 4 at lines 10-60 can be described as "Applicant's Admitted Prior Art," at least when Appellants have heretofore only attempted in good faith to comply with the Rules of Practice in Patent Cases (37 C.F.R. §§ 1.1-1.825).

Appellants respectfully request that the Examiner adhere to the guidelines dictating that "related art" is not equivalent to "admitted prior art." Appellants respectfully requests that the Examiner withdraw the label of "Applicant's Admitted Prior Art" from the art set forth in the present Application.

In view of the foregoing, Appellants respectfully submit that the Appellants' Figure 1, col. 1 at lines 23-35 and 37-67, col. 2 at lines 4-14, and col. 4 at lines 10-60 cannot be labeled as "Applicant's Admitted Prior Art."

Therefore, the Appellants respectfully submit that the Examiner failed to establish a *prima*

*facie* case of obviousness regarding claims 11-33, 35, 36, 38, 42, 43, 46, 55, 56, and 60.

#### 8.2.3 Additional Reasons Showing Why Claim 11 is Allowable

In the § 103 rejection of claim 11, the Examiner relies on the alleged “Applicant's Admitted Prior Art” (AAPA) in view of Heineman (Paper No. 12, p. 2). The Examiner identifies the alleged AAPA as Appellants' Figure 1, column 1 at lines 37-67, and column 4 at lines 10-60. As shown above, the alleged AAPA does not qualify as prior art under any subsection of 35 U.S.C. § 102. Therefore, the rejection of claim 11 is improper and should be overturned.

#### 8.2.4 Additional Reasons Showing Why Claim 12 is Allowable

The rejection of claim 12 is respectfully believed to be improper because the Examiner relies on the alleged AAPA to teach the “apparatus ... comprising: a control unit ... generating a control signal in dependence upon the received video synchronization signal to control said switch” (see Paper No. 12, p. 3). As shown above, the alleged AAPA does not qualify as prior art under any subsection of 35 U.S.C. § 102. Therefore, the rejection of claim 12 is improper and should be overturned.

Furthermore, the claim 12 is believed to be allowable over Heineman because Heineman fails to teach “generating a control signal in dependence upon the received video synchronization signal” as set forth in claim 12. Heineman controls power in response to data input from a keyboard 16 or mouse 18 (col. 3, lines 20-23).

8.2.5 Additional Reasons Showing Why Claim 14 is Allowable

The rejection of claim 14 is respectfully believed to be improper because the Examiner relies on the alleged AAPA to teach “said present power mode of the monitor being one selected from among a plurality of power modes, in accordance with display power management signaling standard” (see Paper No. 12, p. 3). As shown above, the alleged AAPA does not qualify as prior art under any subsection of 35 U.S.C. § 102. Therefore, the rejection of claim 14 is improper and should be overturned.

Furthermore, the claim 14 is believed to be allowable over Heineman because Heineman fails to teach “said present power mode of the monitor being one selected from among a plurality of power modes, in accordance with display power management signaling standard” as set forth in claim 14. Heineman controls power in response to data input from a keyboard 16 or mouse 18 (col. 3, lines 20-23).

8.2.6 Additional Reasons Showing Why Claim 17 is Allowable

In the § 103 rejection of claim 17, the Examiner relies on the alleged “Applicant's Admitted Prior Art” (AAPA) in view of Heineman (Paper No. 12, p. 2). The Examiner identifies the alleged AAPA as Appellants' Figure 1, column 1 at lines 37-67, and column 4 at lines 10-60. As shown above, the alleged AAPA does not qualify as prior art under any subsection of 35 U.S.C. § 102. Therefore, the rejection of claim 17 is improper and should be overturned.

8.2.7 Additional Reasons Showing Why Claim 18 is Allowable

The rejection of claim 18 is respectfully believed to be improper because the Examiner relies on the alleged AAPA to teach the “method ... comprising: ... generating a control signal in dependence upon the received video synchronization signal to control said switch” (see Paper No. 12, p. 3). As shown above, the alleged AAPA does not qualify as prior art under any subsection of 35 U.S.C. § 102. Therefore, the rejection of claim 12 is improper and should be overturned.

Furthermore, the claim 18 is believed to be allowable over Heineman because Heineman fails to teach “generating a control signal in dependence upon the received video synchronization signal” as set forth in claim 18. Heineman controls power in response to data input from a keyboard 16 or mouse 18 (col. 3, lines 20-23).

8.2.8 Additional Reasons Showing Why Claim 20 is Allowable

The rejection of claim 20 is respectfully believed to be improper because the Examiner relies on the alleged AAPA to teach “said indicating of the power mode of the monitor being performed in dependence upon a mode signal, the mode signal being generated in dependence upon the video synchronization signal” (see Paper No. 12, p. 3). As shown above, the alleged AAPA does not qualify as prior art under any subsection of 35 U.S.C. § 102. Therefore, the rejection of claim 20 is improper and should be overturned.

Furthermore, the claim 20 is believed to be allowable over Heineman because Heineman fails

to teach “said indicating of the power mode of the monitor being performed in dependence upon a mode signal, the mode signal being generated in dependence upon the video synchronization signal” as set forth in claim 20. Heineman controls power in response to data input from a keyboard 16 or mouse 18 (col. 3, lines 20-23).

8.2.9 Additional Reasons Showing Why Claim 21 is Allowable

The rejection of claim 21 is respectfully believed to be improper because the Examiner relies on the alleged AAPA to teach “A computer storage medium having stored thereon a set of instructions implementing a method, the set of instructions comprising one or more instructions: providing power to a heater of a tube in a monitor” (see Paper No. 12, p. 2). As shown above, the alleged AAPA does not qualify as prior art under any subsection of 35 U.S.C. § 102. Therefore, the rejection of claim 21 is improper and should be overturned.

Furthermore, the claim 21 is believed to be allowable over Heineman because Heineman fails to teach the computer storage medium, the set of instructions, and the providing of the power as set forth in claim 21.

8.2.10 Additional Reasons Showing Why Claim 22 is Allowable

The rejection of claim 22 is respectfully believed to be improper because the Examiner relies on the alleged AAPA to teach “[T]he computer storage medium according to claim 21, said set of instructions further comprising one or more instructions for: ... generating a control signal in



dependence upon the received video synchronization signal to control said switch” (see Paper No. 12, p. 3). As shown above, the alleged AAPA does not qualify as prior art under any subsection of 35 U.S.C. § 102. Therefore, the rejection of claim 22 is improper and should be overturned.

Furthermore, the claim 22 is believed to be allowable over Heineman because Heineman fails to teach the “computer storage medium” and the “instructions for: generating a control signal in dependence upon the received video synchronization signal” as set forth in claim 22. Heineman controls power in response to data input from a keyboard 16 or mouse 18 (col. 3, lines 20-23).

#### 8.2.11 Additional Reasons Showing Why Claim 24 is Allowable

The rejection of claim 24 is respectfully believed to be improper because the Examiner relies on the alleged AAPA to teach “[t]he computer storage medium ... , said one or more instructions for indicating the power mode ... comprising ... indicating the power mode of the monitor based on a mode signal, the mode signal being generated in dependence upon the video synchronization signal” (see Paper No. 12, p. 3). As shown above, the alleged AAPA does not qualify as prior art under any subsection of 35 U.S.C. § 102. Therefore, the rejection of claim 24 is improper and should be overturned.

Furthermore, the claim 24 is believed to be allowable over Heineman because Heineman fails to teach “[t]he computer storage medium ... , said one or more instructions for indicating the power mode ... comprising ... indicating the power mode of the monitor based on a mode signal, the mode

signal being generated in dependence upon the video synchronization signal” as set forth in claim 24. Heineman controls power in response to data input from a keyboard 16 or mouse 18 (col. 3, lines 20-23).

#### 8.2.12 Additional Reasons Showing Why Claim 25 is Allowable

In the § 103 rejection of claim 25, the Examiner relies on the alleged “Applicant's Admitted Prior Art” (AAPA) in view of Heineman (Paper No. 12, p. 2). The Examiner identifies the alleged AAPA as Appellants' Figure 1, column 1 at lines 37-67, and column 4 at lines 10-60. As shown above, the alleged AAPA does not qualify as prior art under any subsection of 35 U.S.C. § 102. Therefore, the rejection of claim 25 is improper and should be overturned.

#### 8.2.13 Additional Reasons Showing Why Claim 28 is Allowable

The rejection of claim 28 is respectfully believed to be improper because the Examiner relies on the alleged AAPA to teach “said present power mode ... being one selected from among a plurality of power modes, in accordance with display power management signaling standard” (see Paper No. 12, p. 3). As shown above, the alleged AAPA does not qualify as prior art under any subsection of 35 U.S.C. § 102. Therefore, the rejection of claim 28 is improper and should be overturned.

Furthermore, the claim 28 is believed to be allowable over Heineman because Heineman fails to teach “said present power mode ... being one selected from among a plurality of power modes,

in accordance with display power management signaling standard” as set forth in claim 28. Heineman controls power in response to data input from a keyboard 16 or mouse 18 (col. 3, lines 20-23).

#### 8.2.14 Additional Reasons Showing Why Claim 31 is Allowable

In the § 103 rejection of claim 31, the Examiner relies on the alleged “Applicant's Admitted Prior Art” (AAPA) in view of Heineman (Paper No. 12, p. 2). The Examiner identifies the alleged AAPA as Appellants' Figure 1, column 1 at lines 37-67, and column 4 at lines 10-60. As shown above, the alleged AAPA does not qualify as prior art under any subsection of 35 U.S.C. § 102. Therefore, the rejection of claim 31 is improper and should be overturned.

#### 8.2.15 Additional Reasons Showing Why Claim 35 is Allowable

The rejection of claim 35 is respectfully believed to be improper because the Examiner relies on the alleged AAPA to teach “[a] computer storage medium having stored thereon a set of instructions implementing a method, the set of instructions comprising one or more instructions: receiving ... generating ... ; when the control signal does not correspond to a power off mode of a monitor, conveying power from a power supply to a heater in the monitor; and when the control signal does correspond to the power off mode of the monitor, preventing the heater from receiving power” (see Paper No. 12, p. 2). As shown above, the alleged AAPA does not qualify as prior art under any subsection of 35 U.S.C. § 102. Therefore, the rejection of this claim is improper and should be overturned.

Furthermore, this claim is believed to be allowable over Heineman because Heineman fails to teach “[a] computer storage medium having stored thereon a set of instructions implementing a method, the set of instructions comprising one or more instructions: receiving ... generating ... ; when the control signal does not correspond to a power off mode of a monitor, conveying power from a power supply to a heater in the monitor; and when the control signal does correspond to the power off mode of the monitor, preventing the heater from receiving power” as set forth in this claim. Heineman controls power in response to data input from a keyboard 16 or mouse 18 (col. 3, lines 20-23).

#### 8.2.16 Additional Reasons Showing Why Claim 38 is Allowable

The rejection of claim 38 is respectfully believed to be improper because the Examiner relies on the alleged AAPA to teach an “apparatus, comprising: a control unit having ... an output terminal outputting a control signal in dependence upon the received input signal, the control signal corresponding to a first power signal when the input signal does not include synchronization signals; ... a heater of a cathode ray tube of a monitor” (see Paper No. 12, p. 2). As shown above, the alleged AAPA does not qualify as prior art under any subsection of 35 U.S.C. § 102. Therefore, the rejection of this claim is improper and should be overturned.

Furthermore, this claim is believed to be allowable over Heineman because Heineman fails to teach an “apparatus, comprising: a control unit having ... an output terminal outputting a control signal in dependence upon the received input signal, the control signal corresponding to a first power

signal when the input signal does not include synchronization signals; ... a heater of a cathode ray tube of a monitor” as set forth in this claim. Heineman controls power in response to data input from a keyboard 16 or mouse 18 (col. 3, lines 20-23).

#### 8.2.17 Additional Reasons Showing Why Claim 43 is Allowable

The rejection of claim 43 is respectfully believed to be improper because the Examiner relies on the alleged AAPA to teach a “method, comprising: detecting whether a synchronization signal is present; generating a control signal in dependence upon the detected presence of the synchronization signal, the control signal corresponding to a first power signal when the synchronization signal is not present; and preventing power from a power supply from being conveyed to a heater of a cathode ray tube when the first power signal is generated” (see Paper No. 12, p. 3). As shown above, the alleged AAPA does not qualify as prior art under any subsection of 35 U.S.C. § 102. Therefore, the rejection of this claim is improper and should be overturned.

Furthermore, this claim is believed to be allowable over Heineman because Heineman fails to teach “method, comprising: detecting whether a synchronization signal is present; generating a control signal in dependence upon the detected presence of the synchronization signal, the control signal corresponding to a first power signal when the synchronization signal is not present; and preventing power from a power supply from being conveyed to a heater of a cathode ray tube when the first power signal is generated” as set forth in this claim. Heineman controls power in response to data input from a keyboard 16 or mouse 18 (col. 3, lines 20-23).

8.2.18 Additional Reasons Showing Why Claim 46 is Allowable

The rejection of claim 46 is respectfully believed to be improper because the Examiner relies on the alleged AAPA to teach a “computer storage medium having stored thereon a set of instructions implementing a method, the set of instructions comprising one or more instructions: detecting whether a synchronization signal is present; generating a control signal in dependence upon the detected presence of the synchronization signal, ... ; conveying power from a power supply to a heater of a cathode ray tube when the first power signal is not generated; and preventing the power from a power supply from being conveyed to the heater when the first power signal is generated” (see Paper No. 12, p. 3). As shown above, the alleged AAPA does not qualify as prior art under any subsection of 35 U.S.C. § 102. Therefore, the rejection of this claim is improper and should be overturned.

Furthermore, this claim is believed to be allowable over Heineman because Heineman fails to teach “computer storage medium having stored thereon a set of instructions implementing a method, the set of instructions comprising one or more instructions: detecting whether a synchronization signal is present; generating a control signal in dependence upon the detected presence of the synchronization signal, ... ; conveying power from a power supply to a heater of a cathode ray tube when the first power signal is not generated; and preventing the power from a power supply from being conveyed to the heater when the first power signal is generated” as set forth in this claim. Heineman controls power in response to data input from a keyboard 16 or mouse 18 (col. 3, lines 20-23).

8.2.19 Additional Reasons Showing Why Claim 55 is Allowable

The rejection of claim 55 is respectfully believed to be improper because the Examiner relies on the alleged AAPA to teach a “display apparatus having a tube heater, comprising: ... a control unit detecting a synchronization signal, and generating a first control signal when said synchronization signal is not detected; ... said switch switching off to prevent the power from being delivered to the heater when the first control signal is received” (see Paper No. 12, p. 2). As shown above, the alleged AAPA does not qualify as prior art under any subsection of 35 U.S.C. § 102. Therefore, the rejection of this claim is improper and should be overturned.

Furthermore, this claim is believed to be allowable over Heineman because Heineman fails to teach “display apparatus having a tube heater, comprising: ... a control unit detecting a synchronization signal, and generating a first control signal when said synchronization signal is not detected; ... said switch switching off to prevent the power from being delivered to the heater when the first control signal is received” as set forth in this claim. Heineman controls power in response to data input from a keyboard 16 or mouse 18 (col. 3, lines 20-23).

8.2.20 Additional Reasons Showing Why Claim 56 is Allowable

The rejection of claim 56 is respectfully believed to be improper because the Examiner relies on the alleged AAPA to teach a “display apparatus ..., said control unit being configured to generate a second control signal when said synchronization signal is detected” (see Paper No. 12, p. 3). As shown above, the alleged AAPA does not qualify as prior art under any subsection of 35 U.S.C. §

102. Therefore, the rejection of this claim is improper and should be overturned.

Furthermore, this claim is believed to be allowable over Heineman because Heineman fails to teach “display apparatus ... , said control unit being configured to generate a second control signal when said synchronization signal is detected” as set forth in this claim. Heineman controls power in response to data input from a keyboard 16 or mouse 18 (col. 3, lines 20-23).

Accordingly, Appellants hereby respectfully appeal the rejection of claims 11-33, 35, 36, 38, 42, 43, 46, 55, 56, and 60, as set forth in the final Office action mailed on 2 April 2003 (Paper No. 12).

8.2.21 Additional Reasons Showing Why All Claims 11-33, 35, 36, 38, 42, 43, 46, 55, 56, and 60 are Allowable

The Examiner has not established a *prima facie* case of obviousness, even though the Examiner has the burden of establishing a *prima facie* case of obviousness by a preponderance of evidence. The Examiner has the burden of proof, by a preponderance of evidence, to show that an applicant is not entitled to a patent because the claimed subject matter is anticipated by, or is obvious from, the art of record. A patent applicant is entitled to a patent “unless” the Examiner establishes otherwise. See, e.g., *In re Dembiczak*, 175 F.3d 994, 1001, 50 USPQ2d 1614 (Fed. Cir. 1999); *In re Epstein*, 32 F.3d 1559, 1564 (Fed. Cir. 1994); *In re Rijckeart*, 9 F.3d 1551, 1552, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596 (Fed. Cir. 1988).



Since the elements of a *prima facie* case as spelled out by the Federal Circuit have not been established here, the Appellants respectfully submit that they are entitled to a patent.

The Appellants have demonstrated hereinabove that the independent claims 11, 17, 21, 25, 31, 35, 38, 43, 46, and 55 are allowable over the cited art and are nonobvious. Accordingly, the claims depending therefrom are patentable over the cited art and are nonobvious. Furthermore, the combination and modification of cited art, as proposed and relied upon by the Examiner, is not believed to be reasonable, likely, and proper.

The Examiner has not satisfied the requirements set forth in 35 U.S.C. § 103 regarding a rejection of claims based on obviousness. The Examiner has not satisfied the first basic criteria of a *prima facie* case of obviousness because the rejection relies on a combination of the teachings of portions of the Appellants' disclosure, which do not qualify as "prior art" under §§ 102 and 103, with the teachings of Heineman. Such a combination forces the § 103 rejection to be invalid. Also, Heineman alone does not teach all of the features of all of the rejected claims.

The Examiner has not satisfied the second basic criteria of a *prima facie* case of obviousness because the Examiner has not shown a reasonable expectation of success relating to subject matter that qualifies as prior art under any subsection of 35 U.S.C. § 102. Again, Heineman alone does not remedy this deficiency because Heineman alone does not teach all of the features of all of the rejected claims.

The Examiner has not satisfied the third basic criteria of a *prima facie* case of obviousness because the rejection relies on a combination of the teachings of portions of the Appellants' disclosure, which do not qualify as "prior art" under §§ 102 and 103, with the teachings of Heineman. Such a combination forces the § 103 rejection to be invalid. Heineman alone does not remedy this deficiency because Heineman alone does not teach all of the features of all of the rejected claims.

The foregoing shows that the Examiner has failed to establish a *prima facie* case of obviousness. In view of the improper combination of art relied upon, and the inability of Heineman alone to support the rejections, the Appellants respectfully submit that the rejection of claims 11-33, 35, 36, 38, 42, 43, 46, 55, 56, and 60 should be overturned.

## 9. CONCLUSION

The rejection of claims 11-33, 35, 36, 38, 42, 43, 46, 55, 56, and 60 is respectfully believed to be flawed and improper for numerous reasons.

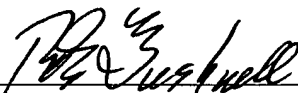
The Examiner failed to establish a *prima facie* case of obviousness. The Examiner relied on an improper combination of art. The Appellant never described any drawing or portion of the Appellants' disclosure as "prior art", but the Examiner nevertheless mislabeled the Appellants' disclosure as "Applicant's Admitted Prior Art" (AAPA) and then proceeded to rely on Appellants' disclosure in every claim rejection. The Examiner did not persuasively demonstrate how the

Appellants' disclosure qualified as prior art under any subsection of 35 U.S.C. § 102. Heineman alone fails to remedy the aforementioned deficiencies of the final rejection.

For all of these reasons, the Appellants respectfully submit that the rejection of claims 11-33, 35, 36, 38, 42, 43, 46, 55, 56, and 60 is improper and should be overturned.

In view of the law and facts stated herein, as well as all of the foregoing reasons, Appellant believes that the rejection is improper, and respectfully requests that the Board refuse to sustain the outstanding rejection of claims 11-33, 35, 36, 38, 42, 43, 46, 55, 56, and 60 under 35 U.S.C. § 103.

Respectfully submitted,



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**X. APPENDIX**

**CLAIMS UNDER APPEAL (11-33, 35, 36, 38, 42, 43, 46, 55, 56, 60)**

1       11. An apparatus, comprising:

2       a power supply providing power to a heater of a tube in a monitor; and

3       a switch being disposed between said power supply and the heater, said switch switching off  
4       the power provided to the heater when the monitor enters a power-off mode.

1       12. The apparatus of claim 11, further comprising:

2       a control unit receiving a video synchronization signal, and generating a control signal in  
3       dependence upon the received video synchronization signal to control said switch.

1       13. The apparatus of claim 11, further comprising:

2       an indicator indicating a present power mode of the monitor.

1       14. The apparatus of claim 13, said present power mode of the monitor being one selected

2       from among a plurality of power modes, in accordance with display power management signaling  
3       standard.

1       15. The apparatus of claim 14, said indicator comprising at least one light emitting diode.

1       16. The apparatus of claim 11, said switch comprising at least one transistor.

1       17. A method, comprising:

2       providing power to a heater of a tube in a monitor;

3       providing a switch between a source of said power and said heater; and

4       turning off said switch when the monitor enters a power-off mode.

1       18. The method of claim 17, further comprising:

2       receiving a video synchronization signal; and

3       generating a control signal in dependence upon the received video synchronization signal to  
4       control said switch.

1       19. The method of claim 17, further comprising:

2       indicating a power mode of the monitor.

1       20. The method of claim 19, said indicating of the power mode of the monitor being  
2       performed in dependence upon a mode signal, the mode signal being generated in dependence upon  
3       the video synchronization signal.

1       21. A computer storage medium having stored thereon a set of instructions implementing a  
2       method, the set of instructions comprising one or more instructions:

3       providing power to a heater of a tube in a monitor;  
4       providing a switch between a source of said power and said heater; and  
5       turning off said switch when the monitor enters a power-off mode.

1       22. The computer storage medium according to claim 21, said set of instructions further  
2       comprising one or more instructions for:  
3       receiving a video synchronization signal; and  
4       generating a control signal in dependence upon the received video synchronization signal to  
5       control said switch.

1       23. The computer storage medium according to claim 21, said set of instructions further  
2       comprising one or more instructions for:  
3       indicating a power mode of the monitor.

1       24. The computer storage medium according to claim 23, said one or more instructions for  
2       indicating the power mode of the monitor comprising one or more instructions for:  
3       indicating the power mode of the monitor based on a mode signal, the mode signal being  
4       generated in dependence upon the video synchronization signal.

1       25. An apparatus, comprising:  
2       a control unit receiving signals, and generating a control signal in dependence upon the

3 received signals; and

4 a switch being disposed between a power supply and a heater in a monitor, said switch  
5 selectively switching on and off in response to the control signal, said switch switching on to convey  
6 power from the power supply to the heater when the control signal does not correspond to a power  
7 off mode of the monitor, said switch switching off to prevent the heater from receiving power from  
8 the power supply when the control signal corresponds to the power off mode of the monitor.

1 26. The apparatus of claim 25, said received signals not including synchronization signals  
2 when the monitor enters the power off mode.

1 27. The apparatus of claim 25, further comprising:  
2 an indicator indicating a present power mode of the monitor.

1 28. The apparatus of claim 27, said present power mode of the monitor being one selected  
2 from among a plurality of power modes, in accordance with display power management signaling  
3 standard.

1 29. The apparatus of claim 27, said indicator comprising at least one light emitting diode.

1 30. The apparatus of claim 25, said switch comprising at least one transistor.

1       31. A method, comprising:  
2       receiving at least one signal, and generating a control signal in dependence upon the received  
3       at least one signal;  
4       when the control signal does not correspond to a power off mode of a monitor, conveying  
5       power from a power supply to a heater in the monitor; and  
6       when the control signal does correspond to the power off mode of the monitor, preventing  
7       the heater from receiving power.

1       32. The method of claim 31, the received signal not including synchronization signals when  
2       the monitor enters the power off mode.

1       33. The method of claim 32, further comprising:  
2       indicating a power mode of the monitor.

1       35. A computer storage medium having stored thereon a set of instructions implementing a  
2       method, the set of instructions comprising one or more instructions:  
3       receiving at least one signal, and generating a control signal in dependence upon the received  
4       at least one signal;  
5       when the control signal does not correspond to a power off mode of a monitor, conveying  
6       power from a power supply to a heater in the monitor; and  
7       when the control signal does correspond to the power off mode of the monitor, preventing



8 the heater from receiving power.

1 36. The computer storage medium according to claim 35, said set of instructions further  
2 comprising one or more instructions for:  
3 indicating a power mode of the monitor.

1 38. An apparatus, comprising:  
2 a control unit having an input terminal receiving an input signal, and having an output  
3 terminal outputting a control signal in dependence upon the received input signal, the control signal  
4 corresponding to a first power signal when the input signal does not include synchronization signals;  
5 a power supply supplying power;  
6 a heater of a cathode ray tube of a monitor; and  
7 a switch being disposed between said power supply and said heater, said switch having a first  
8 input terminal connected to said power supply and receiving the power, a second input terminal  
9 connected to said control unit and receiving said control signal, and an output terminal connected  
10 to said heater, said switch selectively operating in response to the control signal received from said  
11 control unit, said switch conveying the power from said power supply to said heater when the control  
12 signal does not correspond to the first power signal, said switch not conveying the power from said  
13 power supply to said heater when the control signal corresponds to the first power signal.

1 42. The apparatus of claim 38, said switch comprising at least one transistor.

1       43. A method, comprising:  
2       detecting whether a synchronization signal is present;  
3       generating a control signal in dependence upon the detected presence of the synchronization  
4       signal, the control signal corresponding to a first power signal when the synchronization signal is not  
5       present; and  
6       preventing power from a power supply from being conveyed to a heater of a cathode ray tube  
7       when the first power signal is generated.

1       46. A computer storage medium having stored thereon a set of instructions implementing a  
2       method, the set of instructions comprising one or more instructions:  
3       detecting whether a synchronization signal is present;  
4       generating a control signal in dependence upon the detected presence of the synchronization  
5       signal, the control signal corresponding to a first power signal when the synchronization signal is not  
6       present;  
7       conveying power from a power supply to a heater of a cathode ray tube when the first power  
8       signal is not generated; and  
9       preventing the power from a power supply from being conveyed to the heater when the first  
10       power signal is generated.

1       55. A display apparatus having a tube heater, comprising:

2       a power supply outputting a power;

3       a control unit detecting a synchronization signal, and generating a first control signal when  
4 said synchronization signal is not detected;

5       a switch being disposed between said power supply and said tube heater, said switch being  
6 configured to receive the first control signal from said control unit, said switch switching off to  
7 prevent the power from being delivered to the heater when the first control signal is received.

1       56. The display apparatus of claim 55, said control unit being configured to generate a second  
2 control signal when said synchronization signal is detected, said switch switching on in response to  
3 the second control signal and conveying the power from said power supply through said switch to  
4 said tube heater.

1       60. The apparatus of claim 55, said switch comprising at least one transistor.